The Milling of Coins

COINS with milled edges were invented by Antoine Brucher, a Frenchman, to prevent clipping or shaving of edges. The practice was permanently established in 1662 in England and adopted in other countries.

Magazine Page

This Day in Our History

THIS is the anniversary of the defeat, in 1757, of General Braddock's army by the French, near Fort Duquesne. The resourcefulness of George Washington saved the English army from annihilation.

Rex Beach's *Vivid Love Story* THE AUCTION BLOCK *Illustrated By* Charles Dana Gibson

A Realistic Romance Wherein Poverty and Millions Walk Side by Side in Strange Places.

By Rex Beach,
Author of "The Spoilers," "The Silver Horde," "The Barrier," "Heart of the Sunset" and Numerous Other Popular Novels.

"HOP in, mister. I'll drive you an' your friends to Philadelphy for ten dollars," the cabby offered invitingly.

But Bob was obdurate. "I'll make it fifteen, and you can lend me your coat and hat. We'll exchange—have to, or no joke. Is it a go?"

The offer was tempting, but the driver cannily demanded Wharton's name and address before committing himself. The card that Bob handed him put an end to the parley; he wheeled into the side street and removed his long nickel-buttoned coat and his battered tile, taking Bob's broadcloth garment and well-blocked hat in return.

"First one o' these I ever had on," he chuckled. "But it's a bit cool for shirt sleeves, ain't it? Mind now, if you get lost give the horse his head and he'll find the stable, but don't run 'im. If you ain't back in an hour I'll know you've got a puncture. Ha! In the mornin' I'll take these glad rags to Charley Voice's hotel, eh?"

"Right! The Charlevoix. But I'll be back." Bob drove away with a parting flourish of his whip.

Wasting No Time.

The elevator was in its place, the hallman was dozing, with heels propped upon the telephone switchboard, when Wharton entred the Elegancia and rang the bell of Lilas Lynn's apartment; but a careless glimpse of the glittering buttons and the rusty hat sent the attendant back into his drowse.

Once Bob had gained admittance little time was wasted. He and Merkle helped Hammon to his feet, then each took an arm; but the exertion told, and Jarvis hung between them like a drunken man, a gray look of death upon his face.

"Watch out for the doorman," Jimmy Knight cautioned for the twentieth time. "Make him think you've got a souse."

"Aren't you coming along?" asked Bob.

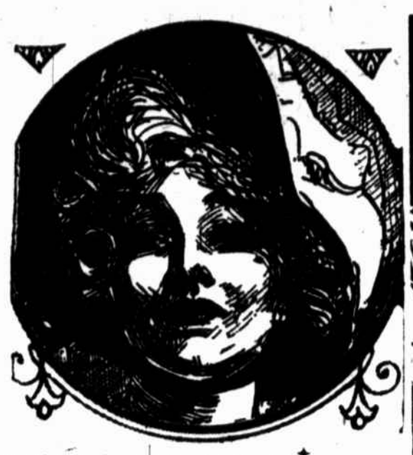
But Jim recoiled. "Me? No. I'll stay and help Lilas make her getaway."

Merkle nodded agreement. "Don't let her get out of your sight, either, understand? There's a ship sailing in the morning. See that she's aboard."

Jarvis Hammon spoke. "I want you all to know that I'm entirely to blame and that I did this myself. Lilas is a—good girl." The words came laboriously, but his heavy brows were drawn down, his jaw was square. "I was clumsy. I might have killed her. But she's all right, and I'll be all right, too, when I get a doctor. Now put that pistol in my pocket, John. Do as I say. There! Now I'm ready."

The hall-man of the Elegancia was somewhat amused at sight of the three figures that emerged from Miss Lynn's apartment, and surmised that there had been a gay time within, judging from the condtion of the old man in the center. Theatrical people were a giddy lot, anyhow. Since there was no likelihood of a tip from one so deeply in his cups, the attendant did not trouble to lend a hand, but raised hs heels to the switchboard and dozed off again.

Bob Wharton mounted the box and drove eastward across Broadway, through the gloomy block to Columbus avenue and on to Central Park West, the clop-clop-clop of the horse's feet echoing lonesomely in the empty street. At Sixty-seventh street he wheeled into the sunken causeway that links the east and west sides.



Lilas Lynn, who traps Jarvis Hammon into a proposal of marriage and then causes his death.

Once in the shadows, Merkle leaned from the door, crying softly, "Faster! Faster!"

Bob whipped up, the horse cantered, the cab reeled and bounced over the cobblestones, rocking the wounded man pitifully.

To John Merkle the ride was terrible, with a drunkard at the reins and in his own arms a perhaps fatally injured man, who, despite the tortures of that bumping carriage, interspersed his groans with cries of "Hurry, Hurry!" But, while Merkle was appalled at the situaton and its possible consequences, he felt, nevertheless, that Hammon had acted in quite the proper way. In fact, for a manly man there had been no alternative, regardless of who had fired the shot. It was quite like Jarvis to do the generous, even the heroic, thing when least expected. Whatever Hammon might have been, he was in the last analysis all man, and Merkle admired his courage. He was glad that Hammon had thought of those three women who bore his name, even if they bore him no love, and he took courage from his friend's plucky self-control. Perhaps the wound was not serious, after all. Hammon's death would mean the ruin of many investors, a general crash, perhaps even a widespread panic, and, according to Merkle's standards, these catastrophes bulked bigger than the unhappiness of women, the fall of an honored name, or death itself.

When he felt the grateful smoothness of Fifth avenue beneath the wheels he leaned forth a second time and warned Bob, "Be careful of the watchman in the block."

The liquor in Bob was dying; he bent downward to inquire, "Is he all right?"

Merkle nodded, then withdrew his head.

The Hammon residence has changed owners of late, but many people recall its tragic associations and continue to point it out with interest. It is a massive pile of gray stone, standing just east of Fifth avenue, and its bronze doors open upon an exclusive, well-kept side street. As the cab swung in sight of the house Wharton, seeing a gray-clad figure near by, drove past without pausing and turned south on Madison avenue. He made a complete circuit of the block, meditating with sobering effect upon the risk he was running. His heart was pounding violenting when the street unrolled before him for a second time. At the farther corner, dimly discernible beneath the radiance of a street light, he made out the watchman, now at the end of his patrol. The moment was propitious; there could be no further delay.

Lorelei and her scheming brother, Jim, who seeks to use her to make money for himself.

Bob reined in and leaped from his box. Merkle had the cab door open and was hoisting Hammon from his seat.

"Have you got the key?" Bob asked, swiftly.

"Yes. Help me! He's fainted, I think."

They lifted the half-conscious man out, then with him between them struggled up the steps; but Hammon's feet dragged; he hung very heavy in their arms.

Merkle was not a strong man; he was panting, and his hands shook as he fumbled with the lock. The key escaped him and tinkled upon the stone.

"Hurry! Here comes the watchman." Bob was gazing over his shoulder at the slowly approaching figure. The watchman had his eyes fixed upon the old-fashioned vehicle and its dejected animal, wondering, no doubt, what brought such an antiquated rig into this most exclusive neighborhood. He was within a few numbers of the Hammon house before Merkle solved the mysteries of the lock and the heavy portals swung open. In another instant the door had closed noiselessly, and the three were shut off from the street by a barricade of iron grillwork and plate glass. Both Bob and Merkle were weak from the narrowness of their escape, but the way was still barred by another door, through which two elaborate H's worked into French lace panels showed pallidly.

A second but briefer delay, and they stood in the gloom of the marble foyer hall. Then they shuffled across the floor to the great curving stairway. Both of Hammon's friends knew the house well, and, guided only by their sense of touch, they labored upward with their burden. The place was still, tomb-like; only the faint, measured ticking of a clock came to them.

Hammon had assured them that there would be no one in the house except Orson, his man, and some of the kitchen servants, the others having followed their mistress to the country; nevertheless the rescuers' nerves were painfully taut, and they tried to go as silently as burglars. It was hard, awkward work; they collided with unseen objects; their arms ached with the constant strain; when they finally gained the library they were drenched with perspiration. Merkle switched on the lights; they deposited the wounded man on a couch and bent over him.

Hammon was not dead. Merkle felt his way into the darkened regions at the rear and returned with a glass of spirits. Under his and Bob's ministrations, the unconscious man opened his eyes.

"You got me here, didn't you?" he whispered, as he took in his surroundings. "Now go—everything is all right."

"We're not going to leave you," Merkle said, positively.

"No!" echoed Bob. "I'll wake up Orson while John telephones the doctor."

But Hammon forbade Bob's movement with a frown. It was plain that despite his weakness his mind remained clear.

"Listen to me," he ordered. "Prop me up—put me in that chair. I'm choking." They did as he directed. "That's better. Now, you mustn't be seen here—either of you. We can't explain." He checked Merkle. "I know best. Go home; it's only two blocks—I'll telephone."

"You'll ring for Orson quick?" Hammond nodded.

"Rotten way to leave a man," Bob mumbled. "I'd rather stick it out and face the music."

"Go, go! You're wasting time." Hammon's brow was wrinkled with pain and anger. "You've been good; now hurry."

Merkle's thin face was marked with deep feeling. "Yes," he agreed. "There's nothing else for us to do; but tell Orson to 'phone me quick. I'll be back here in five minutes." Then he and Bob stole out of the house as quietly as they had stolen in.

They got into the cab and drove away without exciting suspicion. Merkle alighted two blocks up the avenue and sped to his own house; Bob turned his jaded nag westward through the sunken road that led toward the Elegancia and Lorelei.

The owner of the equipage was waiting patiently, and there still lacked something of the allotted hour when the exchanged garments had been transferred to their respective owners. Bob walked toward the Elegancia with a feeling of extreme fatigue in his limbs, for the effort to conquer his intoxication had left him weak; he dimly realized also that he was still far from sober.

(To Be Continued Tomorrow.)

A Graphic Story of Metropolitan Stage Life and a Beautiful Girl's Great Sacrifice.

BOBBIE AND HIS PA

—By William F. Kirk—

LAST evening Pa dident say a word to neether Ma or I for neer a hour. Ma & Me began to look at each other.

Are you sick this eve? sed Ma to Pa after a hour was up.

Not me, sed Pa, I never felt moar ro-buster, sed Pa. I have been working on a Master-peece, sed Pa.

What is a Master-peece? I sed.

A grate poem or a grate painting or a grate song, Bobbie, sed Pa. Wud you like to heer this poem? sed Pa to Ma & I.

Ma dident say anything so I sed All rite, if it aint too long.

I have a very Pree-shia-tiv fambly, sed Pa. I bet that aint spelt but that is the way it sounded to me. Howevver, sed Pa, this is how it goes, & then Pa red:

The girls of today dress so funny
& queer,
How do thay git that way?
The prices of everything now is
deer,
How do thay git that way?
The men of the land are up in the
air
Beekaus thare companyuns, the
ladies so fare,
Will run this whole nashun in
time they declare.

How do thay git that way?

Now, sed Pa, after he had red the poetry, now I am in kind of a Di-lemmy, sed Pa, as to what to do with it.

It wuddent keep me in a Di-lemmy long, sed Ma. I wud chuck it in the stove, sed Ma.

What? sed Pa, wud you let the crule flames deevour this dethless poem? sed Pa.

I'll say I wud, sed Ma. Crule flames aint any cruler than that kind of potery, sed Ma. Burn it up, sed Ma.

Do you meen it, sed Pa?

Certingly I meen it, sed Ma. What is the use of keeping it, sed Ma.

I like it, I sed. I wuddent burn it up, I sed to Pa.

You see, sed Pa, Bobbie talks after me, he has the true artistick temper, sed Pa.

I like anything Pa rites, I sed.

You will git oaver it, sed Ma. Wen you are older & moar chivvelrus, sed Ma, you will ree-sent anything wich is ritten aggenst the ladies, sed Ma, if you talk after our side of the fambly at all.

But I am afrade Pa is rite, I sed. I am afraid that wimmen will run everything in time, I sed.

How silly of a child to speek thus, sed Ma.

Sumtimes a child is a Profit, sed Pa. Wait & see if he doesnt speek the truth, sed Pa.

I hoap I am wrong, it will be hard for us men if the wimmen runs everything, us men will have to git jobs driving teems & lifting the handels of the wheel-barriers, I bet. But I hoap I am rong, tho, but I am afrade I am rite.

Glory of Noon and of Sunset

By Garrett P. Serviss,
Eminent Astronomer and Authority on Subjects of Scientific Interest.

"I was disappointed when you did not fully answer your correspondent who asked about the redness of the moon when near the horizon. Won't you please discuss in detail the redness of the sky at sunrise and sunset and its blueness at other times, and the color variations of moon and sun when near the horizon? —G. R. S., New York."

ALTHOUGH Lord Rayleigh and others have since made more elaborate studies of the cause of the blueness, and other colorations, of the sky and have explained some technical details more fully, the work of John Tyndall on this subject still remains the general basis of all that we really know about it. Tyndall's artificial "blue skies," produced in transparent vessels filled with prepared liquids and vapors, were among the scientific marvels of the nineteenth century, and hardly anything that that great popularizer of science did was more widely admired.

Briefly stated, Tyndall's explanation was that the atmosphere is opalescent, i. e., the air is a turbid medium, more or less filled with small floating particles, visible only through their effects. Later investigators like Prof. R. W. Wood, have concluded that even the molecules of the air themselves may act like floating particles in producing a differential scattering of the light-waves, depending upon the length of the waves and the size of the particles.

The blueness of smoke or of steam, seen mainly by reflected light suggests the nature of the cause that produces the sky blue. The particles are so fine that they are smaller in diameter than the longer light-waves, those toward the red end of the spectrum, but are comparable in dimension with the tiniest of the waves, those at the blue end.

The consequence is that, while the longer waves pass on nearly unobstructed, the short blue ones are arrested and then scattered in every direction by the obstructing particles, which radiate this light by reflection all around them, and thus a blue illumination is spread through the atmosphere. It is the lateral dispersion of the short waves that turns the sky to an azure hue. As Tyndal says:

"We need only consider that we receive light at the same time from all parts of the hemisphere of heaven." (He is speaking of daylight.) "The light of the firmament comes to us across the direction of the solar rays, and this lateral and opposing rush of wave-motion can only be due to the rebound of the waves from the air itself, or from something suspended in the air. It is also evident that the solar light is not reflected by the sky in the proportions which produce white, for the sky is blue, which indicates a deficiency on the part of the larger waves."

But, curiously enough, the same cause that makes the sky in the middle of the day, when the sunlight strikes downward at a high angle, appear blue, is the principal agent in coloring the atmosphere with gorgeous tints of red, orange and yellow when the sun is near or just below the horizon.

The explanation of this is that the air, being a turbid medium, has a dichroitic action upon light, which means that the air shows different colors according as it is seen by transmitted or by reflected light. The transmitted light is predominantly red; the reflected predominantly blue.

In the middle of the day, when the sunlight has not so great a distance to pass through the air as near sunrise or sunset, the scattered blue light is sufficient to overpower the other, and so produces a prevailing blue tint. But when the sun is near the horizon the rays have to traverse seven or eight times as great a thickness of air as at noonday, and the number of obstructing particles consequently becomes so great that the short waves are absorbed by over scattering, which results in their practical extinction, leaving the longer waves alone to get through. Not only the sky colors but the color imparted to sun and moon seen through the increased thickness of air is thus explained. Again, no one has put this as clearly as Tyndall:

"They (the increasing number of atmospheric particles) abstract in succession the violet, the indigo, the blue, and even disturb the proportions of green. The transmitted light under such circumstances must pass from yellow through orange to red. Thus, while the reflected light gives us at noon the deep azure of the Alpine skies, the transmitted light gives us at sunset the warm crimson of the Alpine snows."

With regard to the sunset colors, it is interesting to remember that the atmosphere, by refraction, acts like a prism, bending the blue rays more out of their course, downward, than the red rays. This causes a star, when seen with a telescope near the horizon, to resemble a verticle spectrum. The blue appears at the bottom in the telescope, but is really at the top, and the arrangement of the colors in the star band is the same as in the sunset sky, viz., red below, then orange, then yellow, and above the blue of the higher sky.

THE RHYMING OPTIMIST

—By Aline Michaelis—

HOW I've hankered to travel abroad, to view places that other folks laud! For those vistas Parisian people claim are Elysian, and I know I'd be awfully awed. How I'd love to hop off to Deauville, having plenty of hours to kill; what I read in the papers about seaside capers assures me of getting a thrill. In old London I'm longing to be drinking buckets of extra strong tea, and though folks think it funny, I've hoarded my money to spend on the famed Zuyder Zee. But I hear with a great deal of pain that the pirates are raging again; that abroad where you tarry some Tom, Dick to Harry charges tariffs not far from profane. Oh, the dollars they ask for a meal will make even the spendthrift chap squeal; they've a thousand devices for boosting their prices, and they ply them with pepper and zeal. So, though pining for Alpine retreats, when I think what they'd tax me for eats, I decide travel's folly and that life's far more jolly loafing here on the old home town streets. True, Milan lays Podunk in the shade; but, when facing a robber brigade, life would cease to be sunny while passing out money to hold-up men after each trade. So my home is the Mecca for me 'till those hamlets far over the sea learn to listen to reason and start out some fine season with their prices where prices should be. Oh.

Know That—

The sixth President, John Quincy Adams, was the son of the second President, John Adams, and the twenty-third President, Benjamin Harrison, was the grandson of the ninth President, William Henry Harrison.

Mary, Queen of Scots, became entangled in a conspiracy against her cousin, Queen Elizabeth of England. She was brought to trial and condemned, and was beheaded on February 8, 1587, at Fotheringay Castle.

CREATING A BUSINESS

—By Wm. A. McKeever—

FIFTEEN years ago two city boys, cousins, were attending a city high school and working at a greenhouse to pay the expense of their education. They conceived the idea of furnishing on their own account the floral decorations for school parties and other special occasions.

During the last two years of the high school course the floral art of these youths became so conspicuous as to attract much favorable publicity, and their services as decorators became increasingly in demand.

Today, the same two, now young men, are conducting a beautiful new greenhouse of their own and in a place where such an institution would not be expected to thrive. But the artistic skill, the clean attractiveness and the superb business management of the place have already combined to force its attention upon the public mind and approval. In one combined effort these two young florists have created both their own characters and their successful business enterprise.

Only a few years earlier than the starting date of the two florists, two young brothers were struggling with the combined problem of getting through high school and serving as printers' assistants for a small wage. They used their private craft practically by publishing a little "two-by-four" high school paper. Later this publication was enlarged and dignified, becoming the official organ of the school, and the brothers were continued as its managers.

Today I found the two printer brothers in a country town succeeding with a small daily paper where such an effort would supposedly bring only want and hunger. How can it be done? I asked. And here is a paraphrase of the reply:

"We came here out of the army at the close of the war with practically nothing. We liked the place and the people and decided to create a business by persistence and hard work.

THE BROKEN HEART

—By Beatrice Fairfax—

Who Occupies a Unique Position in the Writing World as an Authority on the Problems of Life.

"I DON'T want to go on living without him. What have I to hope for now that the one thing I wanted of life is gone?" asks Jane. While John writes:

"I cannot bear my loss. She was everything to me. And now that she is gone I have nothing to live for."

Nothing to live for? Let us see. When love is gone—what remains?

There is courage. There is faith. There is—work.

Wounds heal. They always have. They always will. Time takes care of that.

A tragic love affair may leave a little scar of unfaith or doubt or cynicism. But what seems unbearable today will only be a painful memory in a year. It may not be painful. For there is so much to learn through blundering that sometimes in retrospect the tragedy seems a blessing in disguise.

We all need education. We all need to learn that our sorrows are of our own making—due to wrong thinking and nothing else. We have learned a great and important lesson once we can acknowledge honestly:

"This was my fault. I loved the wrong sort of person," or "I loved the right sort of person in the wrong way."

Once we have blundered, made a fiasco of what should have been a beautiful love, we have learned something about what not to do. We have been given a chance to realize what it is that chills and dismisses love. Out of the unhappy experience we bring an equipment to make us wiser and sweeter and worthier when next love visits us.

Love will come again to every heart which not only yearns but prepares for it.

The love which has failed may be nothing but a preparation for a mightier love. Perhaps the power to interpret life will grow out of the sad experience of a love which has failed.

In the capacity to love is the key to all life. In the capacity to surmount suffering is the key to all growth.

An unhappy love affair may wreck the coward. It may cause the moral weakling to decide that nothing is worth while—and sink into degradation and desperation to prove it. But it has a far different effect on a fine, big soul. Such a soul recognizes that unhappiness may have been of its own making—of its own deserving. And so it determines to stand the test and struggle to be worthy of life's gifts when next they are within reach.

Broken hearts mend when once their possessors are honest enough to face the situation they have brought on themselves and to declare:

"I blundered somehow—somewhere I won't fail again. I'll make myself deserving of a big love and then I'll be bound to attract it. And once I have it, I'll hold it. That much I'm going to get out of the seemingly bad experience—the knowledge and power to hold love when next I capture it."

Household Hints

To restore fire-blackened copper kettles or other utensils that have been dulled or blackened by contact with the fire, clean with a lemon cut in half, dipped in salt, and rubber over the sufrace of the metal, which must be speedily washed with water to prevent the acid eating into it.

In spite of all old-fashioned people may say, washing blankets does not improve them. It is real economy to send them to the dry-cleaners, whence they will return like new, instead of yellow and hard as laundries are apt to make them.